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Excessive Surplus

Assessment Report of GHMSI, Inc. Surplus Position

August 31, 2009
Report to DC Appleseed

APPENDIX B

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CHAPTER 1 - Overview

I. Brief

The Consultant Team from Actuarial Risk Management ("ARM") was instructed by DC Appleseed to undertake an independent study and review of the actual surplus level of Group Hospitalization and Medical Services, Inc. ("GHMSI"), which is a hospital and medical services corporation, controlled by CareFirst.

The review is in connection with the Medical Insurance Empowerment Amendment Act of 2008 ("MIEA Act"), effective March 25, 2009 (D.C. Law 17-369; D.C. Official Code § 31-3501 et seq.), amended the Hospital and Medical Services Corporation Regulatory Act of 1996 ("HMSCR Act"), effective April 9, 1997 (D.C. Law 11-245; D.C. Official Code § 31- 3501 et seq.). As amended, the HMSCR Act requires the Commissioner of the Department of Insurance, Securities and Banking ("DISB") to review the portion of a hospital and medical services corporation's surplus attributable to the District of Columbia and issue a determination whether such surplus is excessive

Our scope began by submitting to DISB a comprehensive request list, inclusive of public and company materials, to use in our review to thoroughly assess the adequacy of GHMSI's surplus (See Appendix C). DISB provided the CareFirst, Inc. report, dated July 31, 2009, and the Milliman USA report, dated December 4, 2008 (and based on year end 2007 NAIC filings). These two items were placed in the DISB website.

We find that Milliman's estimated range of acceptable surplus is significantly greater than required to cover the risk of failure to a high degree of certainty. We estimate a level of surplus for GHMSI that will, in our opinion and in light of the materials provided to us, withstand a multiyear period of losses. At our estimated surplus level, GHMSI will almost certainly remain financially healthy, so far as the management of GHMSI conducts business in a non-reckless manner and consistent with its obligation to expend the maximum amount possible for community benefit. This Assessment Report documents our rationale based on the evidence that GHMSI & DISB have presented to us, information about comparable and/or competing companies, and other information we deem relevant to this review.

II. Summary of Findings

This summary of findings from ARM will focus on the major reasons why GHMSI's surplus position is at an unreasonable, unexplainable, and unquestionably conservative level. This conclusion is solely based on our judgment and the review of available public data on GHMSI. Please note that:

- ARM was forced to adopt a tactic of identifying and quantifying the impact of flaws, bias, and conservative assumptions made by Milliman in their analysis.
- ARM would have preferred a more thorough review using a "bottom-up" approach but that was not possible due to the lack of transparent assumptions, accessible data and information that would have enabled replication of the Milliman analysis.

Specifically, in our analysis, we make these findings:

- Milliman has provided analysis for other health companies using a similar "black box" method along with simply re-using much of the same report throughout the years and companies. Milliman has used the same "canned" verbiage in presentations (e.g., India in 2008) and in other comparable reports (for example, a 2006 report for BCBS Rhode Island, a 2004 report for HighMark, and a 2005 report for GHMSI).
- We identify numerous issues with the Milliman cookie-cutter report; some being of significant consequence while others being disconcerting but less influential on the results. The Milliman approaches that have the greatest distortion on the establishment of an appropriate surplus range for GHMSI were: 1) ignoring the effects, both on profitability and surplus contribution basis, from the Federal Employee Program and Other Product Lines; 2) assuming unrealistic levels of Premium Growth Rates during a multi-year loss cycle; and 3) their focus on a standard of complying with a BCBS association reporting requirement rather than District of Columbia law that mandates community health reinvestment be a higher priority than accumulating surplus to levels beyond that which would ensure GHMSI's financial soundness.
- In addition to our identification of those key troubling aspects with Milliman's methodology, we believe there to be other important differences which we are not able to fully substantiate due to the "black box" nature of their analysis. Had we been able to correct these aspects, we believe the appropriate surplus range likely could be still lower.
- We incorporate prudent assumptions into our analysis and conclude that a reasonable range to ensure GHMSI's financial soundness is an RBC ratio of 400 to 525% (or equivalent of a range of $260 million to $534 million in redundant surplus from GHMSI's actual 12/31/2008 surplus position). This equates to approximately 40-50% lower surplus levels than GHMSI reported at 12/31/2008.

Both Milliman and CareFirst have offered full access to their data and analysis in order to obtain a full understanding of their approaches and methodologies. We desire to accept this offer immediately in order to conduct a more thorough analysis prior to the scheduled hearing. However, we have no reason to expect that our review with full information will produce a surplus range that is anywhere in the range that Milliman and CareFirst claim is efficient.

Lastly, this assessment was made independent of any views or opinions on the perceived level of surplus to comply with the District of Columbia legislation's *maximum feasible extent consistent with financial soundness and efficiency*. As such ARM makes no opinion on where within our range would constitute compliance with this governing rule.

III. Qualifications, Limitations, and Disclaimers

The actuaries representing ARM and conducting this review are members in good standing with the American Academy of Actuaries and are qualified to perform the procedures that form the basis of our review and observations.

ARM furnished this Assessment Report to the Executive Director of DC Appleseed only. ARM's representatives will be available to consult with any other reader or interest party.

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Statements contained in this Assessment Report that are prefaced with the words "may", "will", "expect", "anticipate", "continue", "estimate", "project", "forecast", "intend", "designed" and similar expressions, are intended as forward-looking statements regarding events, conditions and financial trends that may affect GHMSI's future plans of operations, business strategy, results of operations and financial position. Further, any forward-looking statement speaks only as of the date on which such statement is made, and ARM undertakes no obligation to update any forward-looking statement to reflect events or circumstances after the date on which such statement is made. As it is not possible to predict every new factor that may emerge, forward-looking statements should not be relied upon as a prediction of actual future financial condition or results. These forward-looking statements, like any forward-looking statements, involve risks and uncertainties that could cause actual results to differ materially from those projected or anticipated.

Nothing included in this Assessment Report is to be included in any filing with the Securities and Exchange Commission or other regulator without the written permission of ARM.

Any reader of this Assessment Report must possess a substantial level of expertise in areas relevant to this analysis to appreciate the significance of the assumptions used in the analysis, and the impact of the assumptions on the illustrated results.

Generally, any actuarial review includes such review of the actuarial assumptions, actuarial methods and the underlying basic records, and such tests of the actuarial calculations as considered necessary.

For the purposes of this assessment, we have relied without independent verification upon the accuracy of all the data and representations contained in the public documents submitted to ARM for the sole purpose of conducting this assessment. The validity of the comments made in this review depends on the accuracy of the data and representations given.

CHAPTER 2 – Group Hospitalization and Medical Services, Inc

I. About CareFirst, Inc.

Group Hospitalization and Medical Services, Inc. (GHMSI) is a hospital and medical services corporation controlled by CareFirst, the holding company. CareFirst has separately incorporated affiliates domiciled in the District of Columbia (GHMSI), and Maryland (CareFirst of Maryland, Inc. ("CFMI") and CareFirst Blue Choice.

CareFirst, Inc. affiliates provide a comprehensive array of health insurance and managed care products and services, primarily through indemnity health insurance, health benefits administration, and health maintenance organizations ("HMOs"). These products and services are provided to individuals, businesses, and governmental agencies primarily in the Washington, D.C. metropolitan area, and the states of Maryland and Virginia.

CareFirst, Inc. incorporated on January 16, 1998, to become the not-for-profit parent of CFMI, CareFirst Blue Choice, and GHMSI. These affiliates do business as CareFirst BlueCross BlueShield.[1] CareFirst, Inc. is the sole parent of:

- GHMSI, d/b/a BlueCross BlueShield of the National Capital Area, the BlueCross BlueShield affiliate for the District of Columbia, Montgomery County and Prince George's County in Maryland, and the area of northern Virginia lying east of VA Route 123 (and including the incorporated cities of Vienna and Fairfax, including those portions of those incorporated cities lying west of VA Route 123).
- CFMI, the BlueCross BlueShield affiliate for the state of Maryland other than Montgomery County and Prince George's County.

Further, effective October 1, 2002, CareFirst BlueChoice ("CFBC"), a Washington, D.C. domiciled HMO, was restructured such that from that date forward it is 60% owned by CFMI and 40% owned by GHMSI. Prior to October 1, 2002, CFBC had enrolled groups from counties in Maryland outside of the GHMSI service area.

II. GHMSI Corporate Structure

CareFirst, Inc. (MD, USA) - Insurance Underwriter, Assets $3,486M
- Group Hospitalization and Medical Services, Inc. (DC, USA) - Managed Care, Assets $1,782M
  - GHMSI Companies, Inc. (USA)
    - CareFirst BlueChoice, Inc. (DC, USA)(40.00% owned) - Managed Care, Assets $668M
      - CapitalCare, Inc. (VA, USA) - Managed Care, Assets $5M
      - Dental Network, Inc. (MD, USA) - Managed Care, Assets $2M
- CareFirst of Maryland, Inc. (MD, USA) - Managed Care, Assets $1,120M
  - CFS Health Group, Inc. (MD, USA)
    - CareFirst BlueChoice, Inc. (DC, USA)(60.00% owned) - Managed Care, Assets $668M
      - CapitalCare, Inc. (VA, USA) - Managed Care, Assets $5M
      - Dental Network, Inc. (MD, USA) - Managed Care, Assets $2M
    - FirstCare, Inc. (MD, USA) - Managed Care, Assets $21M

[1] On March 22, 2000, BlueCross BlueShield of Delaware, Inc. entered into an affiliation with CareFirst and then subsequently disaffiliated following CareFirst's effort to convert to a for-profit business unit of WellPoint (now Anthem) and actions taken by Maryland to reform management of the company.

III. GHMSI's Financial Highlights

In 2008, GHMSI wrote $3.2 billion in direct premiums. Of this amount, nearly $2.0 billion was written in the District of Columbia.

2008 Direct Premiums Written by State by Type ($000)				
Type	**States**			
Health Business	**DC**	**MD**	**VA**	**Total**
Federal Employees Health Benefits Program	1,551,611	0	0	1,551,611
Comprehensive (Hospital & Medical) Group	358,524	623,320	359,201	1,341,045
Comprehensive (Hospital & Medical) Individual	33,183	36,445	62,487	132,115
Dental Only	13,459	45,135	9,545	68,139
Medicare Supplement	3,828	5,115	6,294	15,237
Stop Loss	5,423	8,146	1,012	14,581
Other Health Lines	153	0	0	153
Title XVIII Medicare	0	39	0	39
Total	1,966,714	721,455	438,660	3,126,829

This next table shows the last four years of GHMSI's financial results and various metrics. GHMSI took approximately $18 million in realized capital losses during the financial crisis of 2008, but also had offsetting investment income of $42 million and a net operating gain of $9.5 million. Surplus would have increased from 2007 to 2008, except for a huge increase in non-admitted assets. In a subsequent section we comment further on GHMSI's 2008 financial results and their impact on surplus levels.

GHMSI Financial Highlights				
($000)	**2005 Y**	**2006 Y**	**2007 Y**	**2008 Y**
Period Ended	**12/31/2005**	**12/31/2006**	**12/31/2007**	**12/31/2008**
Balance Sheet				
Total Cash & Investments	779,128	911,613	963,352	923,340
Total Assets	1,528,768	1,690,628	1,699,544	1,772,935
Affiliated Investments (incl. above)	114,524	140,974	174,237	179,364
Total Policy Reserves	264,483	283,062	691,624	737,392
Total Liabilities	967,801	1,027,622	945,985	1,086,155
Capital & Surplus	560,967	663,006	753,559	686,780
C&S / Assets (%)	36.69	39.22	44.34	38.74
Reserves / Surplus (%)	47.15	42.69	91.78	107.37
Total Members (actual)	756,919	810,150	846,805	928,875
Member Months (actual)	8,876,205	9,399,669	9,972,510	10,975,857
Income Statement				
Direct Premiums Written	2,258,372	2,456,519	2,706,982	3,126,829
Net Premiums Written	2,258,297	2,461,318	2,713,086	2,815,214
Net Premiums Earned	2,256,325	2,456,531	2,815,030	2,743,995
Claim and CAE Incurred	2,083,707	2,251,395	2,589,840	2,564,014
Net General Expense Incurred	138,372	157,162	197,711	183,981
Net Underwriting Gain (Loss)	35,365	49,037	40,931	9,516
Net Investment Income	26,496	35,369	40,947	42,339
Net Realized Capital Gains(Losses)	4,631	(1,204)	1,178	(18,020)

Health Financial Highlights ($000)	2005 Y 12/31/2005	2006 Y 12/31/2006	2007 Y 12/31/2007	2008 Y 12/31/2008
Net Income after capital gains (loss) before tax	68,518	83,404	83,606	33,831
Income Tax	14,121	18,781	15,183	7,571
Net Income	54,397	64,623	68,424	26,260
Pre-tax Operating Income	63,888	84,608	82,428	51,851
Growth Rate - Direct Premiums Written	11.15	8.77	10.20	15.51
Growth Rate - Net Premiums Written	11.11	8.99	10.23	3.76
Growth Rate - Operating Income	(36.99)	32.43	(2.58)	(37.10)
Claim and CAE Ratio	92.35	91.65	92.00	93.44
Expense Ratio	6.13	6.40	7.02	6.70
Combined Ratio	98.48	98.05	99.02	100.15
Operating Ratio	97.31	96.61	97.57	98.60
Effective Tax Rate	20.61	22.52	18.16	22.38
Net Yield on Invested Assets	3.62	4.24	4.37	4.37
Pre-Tax Operating Margin	2.79	3.39	2.87	1.85
Return on Average Surplus	10.28	10.51	9.63	3.51
Pre-Tax Operating ROAE	12.07	13.76	11.61	6.93
Return on Average Assets	3.70	4.03	3.92	1.50
Premiums per Member Month ($)	254	262	272	256
Medical Cost Ratio	89.31	88.64	89.07	90.33
Capital, Leverage & Liquidity				
Capital & Surplus	560,967	663,006	753,559	686,780
RBC - Total Adjusted Capital	560,967	663,006	753,559	686,780
ACL Risk Based Capital	62,788	69,444	82,303	81,254
Risk Based Capital Ratio (TAC/ACL RBC) (%)	893.43	954.74	915.59	845.23
Net Premiums Written / C&S (%)	426.61	400.39	382.00	376.18
Affiliated Investments / C&S (%)	20.42	21.26	23.12	26.12
Cash & Short-Term Investments / Liabilities (%)	4.22	(0.12)	0.63	2.04
Reserve Analysis (%)				
Change in Claim and CAE Reserves / Reserves	9.13	5.83	12.23	(8.29)
Claim and CAE Reserves / NPE	11.34	11.09	10.52	12.46
Investments (%)				
Net Yield on Invested Assets	3.62	4.24	4.37	4.37
Affiliated Investments / Total Investments	14.70	15.46	18.08	19.42
Gross Yield - Bonds (excl affiliates)	4.56	5.00	5.19	5.11
Bond Average Asset Quality (1-6) (#)	1.14	1.11	1.10	1.25
Bonds Rated 3-6 / Total Bonds	1.68	0.14	0.02	3.24
Bond <1 Year / Total Bonds	28.22	18.19	18.23	22.94

CHAPTER 3 – Assessment of GHMSI Surplus

I. Observations

Our analysis consisted of a review of the 2008 and 2005 Milliman Reports, the GHMSI business and financial results, a peer analysis to assess GHMSI's position within the market for similar entities, and a review of similar surplus reviews conducted in other states.

Insurance companies are required to hold "emergency" funds, "surplus" —that is, capital over and beyond "reserves" (which are held to pay anticipated claims)[2], to protect policyholders against unanticipated adverse developments. The measure used to quantify the capital adequacy of a company, as adopted by the National Association of Insurance Commissioners (NAIC) in 1992, is known as Risk-Based Capital (RBC). The NAIC has established various thresholds of RBC, which act as warning signs to regulators regarding the company's financial preparedness. Levels of RBC may trigger anything from a simple notice to regulators, to the regulator taking control of the insurer. The latter occurs when the company's RBC falls to 100 percent of its "authorized control level" of risk-based capital, or "ACL". [Appendix A of this report provides further information on RBC and similar capital standards produced by the rating agencies.]

We identified six main points which affect the conclusions made by Milliman and thus provide the basis for our differing opinions. These are discussed in the following sections and are as follows:

a) The relevance of the 375% RBC threshold set by the Blue Cross Blue Shield Association (BCBSA);

b) The exclusive focus on GHMSI's non-Federal Employee Program (FEP) insured risks;

c) The unrealistic premium growth rates assumed in Milliman's pro-forma projections;

d) Profitability trends, underwriting results, and the impact of using results prior to the RBC and GHMSI regulatory eras as inputs into loss cycle models;

e) The inclusion of surplus-reducing items (classifying certain assets as non-admitted); and

f) The impact of Subsidiaries.

We critique other points made in the Milliman and CareFirst reports as well; however, we believe that the aforementioned six points constitute the principal errors that materially influenced Milliman's conclusions.

a. Early Warning Monitoring Floor

In late 1999, the Blue Cross Blue Shield Association (BCBSA), of which GHMSI is a member, adopted higher capital standards for their members than are indicated in the NAIC model regulations and which most or all states and the District have adopted. The stated reasons for higher standards were: 1) to uphold the strength of the Blue brand; 2) to avoid the potential for joint and several liability of Blue carriers; and 3) to assure an early warning if a carrier is in danger of becoming inadequately capitalized, so that it may intervene before regulators have to.

[2] CareFirst erroneously uses the terms "surplus" and "reserves" interchangeably in its July 31, 2009 letter.

The higher BCBSA standards are:

- Termination of the Blues license when capital drops below 200% RBC. Although dropping below this threshold does not signal financial ruin or anything similar, the value of the license to a member company is large and dropping below this threshold is an event that should be avoided with a high degree of certainty, extending to the 98th percentile.

- Association notice and intervention triggered when capital drops below 375% RBC. The Association requires additional reporting from a Blues plan when its capital drops below this level.

According to BCBSA actuaries' analysis, the 375% threshold gives the Association sufficient warning (they estimated up to 2 years) before a company's surplus is likely to decline to the 200% level.[3] As this requirement is not a regulatory event (by definition surplus is still almost four times the level defined as the regulatory authorized control level), no public notification occurs when such an event takes place and there is no consequence to the carrier other than the additional association reporting requirement and subsequent advice and assistance from the association. Thus, while Blues management may not like the added reporting requirements, avoiding a surplus drop below this threshold could reasonably have a much lower level of certainty – perhaps as low a standard as "more likely than not". However, to better facilitate analysis of the Milliman approach we analyze GHMSI's surplus needs with respect to the 375% threshold at a much higher level – the 90th percentile.

Finally, GHMSI is subject to District of Columbia legislation that establishes that, "A corporation shall engage in community health reinvestment to the maximum feasible extent consistent with financial soundness and efficiency."[4] This mandate makes it clear that community health reinvestment is a higher priority than accumulating surplus to levels beyond that which would ensure financial soundness. Avoiding dropping surplus below the 200% RBC threshold is certainly consistent with being financially sound. However, avoiding a reporting requirement to an association (the 375% threshold) does not itself enhance financial soundness and should not therefore be a corporate objective taking precedence over the District of Columbia mandate to engage in community health reinvestment to the maximum feasible extent.

In establishing adequate surplus, it is necessary to look at the specific situation of a company. The RBC formula is a mechanical formula to determine a minimum level of capital based on certain parameters. The 200% threshold is the highest ratio in the regulatory construct and the formulaic results do not necessarily continue to be rational as significantly higher ratios to the basic authorized control level of capital are determined. Furthermore, since the formula is generic to all companies with similar categories of products, it does not have the sensitivity or ability to recognize that companies with similar numbers under the RBC formula may have very dissimilar risks.[5]

[3] See page 16 of the Lewin Group's January 25, 2007 report "Policy Options Regarding Surplus Accumulation in the Washington Health Insurance Market."

[4] Medical Insurance Empower Amendment Act of 2008, D.C. Law 17-369, Sec.2(c) now codified at; D.C. Code § 31-3505.01

[5] Milliman also recognizes that the significant limitations of the RBC methodology in their report. Page 18 of Milliman states, "The use of RBC as a methodology, and of the values calculated from it obviously have significant limitations. The RBC formula is a structured and mechanical approach to trying to capture and quantify the risk characteristics for a wide range of different type of companies operating in a variety of environments, with changing circumstances over time."

b. Federal Employee Program and Other Product Lines

GHMSI participates in the Federal Employees Health Benefit Plan (FEP) along with other BlueCross BlueShield members. In the Milliman Report, they acknowledge that GHMSI has three distinct types of business – FEP, ASC and non-FEP insured business, but they focus their analysis only on the non-FEP insured business.

Potential issues with this approach include the following:

- When Milliman expresses[6] the cumulative losses for an adverse cycle they express it only as a percentage of non-FEP insured premiums – which is only about 45% of GHMSI's revenue in 2008.

- Milliman states[7] that 200% of RBC-ACL equates to approximately 2.5 weeks' worth of insured (*including* FEP) member claims and expenses for GHMSI. 200% of GHMSI's stated 2008 RBC-ACL is $162.5 million. Non-FEP claims and expenses totaled $1.275 billion in 2008. Thus, restated to the basis upon which Milliman did most of its analysis, 200% of RBC-ACL for GHMSI equates to approximately 6.5 weeks of non-FEP claims and expenses. (Note: while we have corrected Milliman's calculation, this metric is not generally used and in our opinion is irrelevant.)

- By focusing only on the non-FEP cycle losses, Milliman does <u>not</u> acknowledge that cycle losses on the non-FEP insured business may be offset in total or in part by concurrent gains on:

    - the FEP business; or
    - non-comprehensive product lines with different risk profiles within the non-FEP insured business ; or
    - investment income.

An example of the failings of the RBC formula being generic to all companies with similar categories of products and not having the sensitivity or ability to recognize that companies with similar numbers under the RBC formula may have very dissimilar risks can be illustrated from looking at GHMSI.

As Milliman notes[8] the FEP premium at GHMSI is a uniquely large proportion of their business[9] and carries significantly less risk than other insured premium. In fact, 55% of GHMSI's premiums in 2008 were from this lower risk FEP premium and yet there is no recognition of that fact in the RBC formula. A more appropriate method would be to make an adjustment to GHMSI's RBC calculations to account for the FEP rate stabilization reserves that make the FEP premium low risk.

GHMSI's FEP business in 2008 had almost $1.5 billion in premium revenue and an underwriting gain of over $20 million. Over the period of 2006-2008, GHMSI's average underwriting gain on FEP business was 1.00% of premium.

Moreover, the non-FEP non-comprehensive insured premiums at GHMSI consist of several product lines with very different risk profiles:

[6] See for example notes on charts on pages 47, 49, and 51 of their report.
[7] See page 20 of their report.
[8] Page 1 of Milliman states, "While FEP is an insured program, the contract is held by the Blue Cross and Blue Shield Association. Separate rate stabilization reserves, are beheld on behalf of this program, which at their current level, significantly reduce the short-term underwriting risk to individual Blue Cross and Blue Shield plans such as GHMSI."
[9] See page 51 of their report.

- Medicare Supplement (MedSupp) insurance is very predictable and not subject to the loss cycles that characterize comprehensive medical. GHMSI has averaged $20 million of MedSupp premium revenue in 2006-2008 and had a net underwriting gain of over 7% on that business.
- Dental insurance is also very predictable and not subject to the loss cycles that characterize comprehensive medical. GHMSI had an average of $48 million of Dental premium revenue from 2006-2008 and had a net underwriting gain of approximately 10% on that business.

The combined underwriting net gain of FEP and non-comprehensive product lines has averaged $23.7 million over the 2006-2008 timeframe. This is equivalent to an average of 2.01% per year of the annual comprehensive non-FEP premium.

Finally, investment income for GHMSI also is available to offset potential losses. During the 2006-2008 period investment income averaged $39.6 million per year or the equivalent of 3.35% of the annual comprehensive non-FEP premium.

c. Aggressive Premium Growth Rates

A simplified summary of the process that Milliman uses to arrive at conclusions about an appropriate range for RBC is as follows:

1) They identify various risks and contingent events and assign a range of possible values to them (Note that neither the risks and contingent events nor the range of values are disclosed in their report);
2) They use a Monte Carlo simulation model to create a range of simulated cumulative operating results ;
3) They establish ranges associated with the maximum loss that could be anticipated with certain degrees of certainty (ranging from 90% to 98%) for a multi-year loss cycle;
4) They take the cumulative loss cycle results and project them forward using a pro-forma process and assuming unrealistic growth rates in premium revenues of 12% to 14% during the loss cycle.

Steps (3) and (4) have a tremendous impact on the projections.

First, it is not entirely clear due to the “black box” nature of the Milliman model as to the length of the “multi-year” loss period they have assumed. On page 52 of their report they say that “GHMSI must be able to absorb these levels of cumulative loss over a 3 or 4 year period”. Our attempts to reproduce the Milliman results indicate that a 4 year loss period was most likely used. We have issues with this for at least a couple of reasons:

1) Even under the “classic” medical insurance cycle, three years of gains were followed by three years of losses. There was not a fourth year of loss in any medical insurance cycle that we can determine.
2) It is now questionable as to whether an insurance cycle currently exists or was just an historic anomaly. This question mark is exemplified by GHMSI which has not a single year of net underwriting loss since 1994 when they were first subjected to new regulatory oversight.

Second, because premiums are such a significant component of the RBC formula, a huge amount of the projected RBC needed in a Pro Forma analysis is directly a result of the projected growth in premiums. Whereas Milliman has assumed premium growth rates of 12-14% in its report, GHMSI’s premiums have actually grown at a fairly consistent average compound growth rate of 7-8% per year since 2003. One might question whether even average premium growth would occur in a loss cycle—that is, could a company

increase its rates more in a loss cycle (and, as is assumed, by far more than would be required to offset membership loss) than in a non-loss cycle? It is our experience that when health insurers take greater than average premium increases it is almost always substantially offset by loss of enrollment.

More realistic assumptions on both the length of the multi-year loss cycle and premium growth rates would substantially reduce Milliman's estimate of GHMSI's RBC needs, even retaining Milliman's scenario of a cumulative underwriting loss cycle of 12-16 percent. Specifically, our analysis shows that (1) shortening the assumed loss cycle to the more realistic and historic three-year period, and (2) using a still-conservative 7-8% premium growth rate would reduce the surplus ranges needed to avoid Loss of Trademark (page 56 of the Milliman report) by 22.5-26%. That is, changing only the assumed length of the multi-year loss cycle and premium growth rates would reduce Milliman's stated RBC ratio range by 175 - 225 percentage points.

d. GHMSI's Profitability and Underwriting Trends

"Underwriting gains and losses" are simply the difference between certain revenues and expenses. The revenues consist of earned premiums, and the expenses consist of incurred claims and general operating expenses. The main driver for success is managing the interaction between these two components.

Underwriting losses reflect unanticipated shortfalls in revenues or increases in medical expenses; they are unintended assuming that the estimates were in fact best estimates when made. A company can, however, intentionally manage its general operating expenses, so as to decrease or increase the size of its underwriting losses as external considerations might make desirable. Reduced efficiency can also create underwriting losses.

In their report, Milliman discusses[10] the impact of predicting trend for incurred claims. The discussion implies that trend is highly unpredictable and that management must act only after trend has occurred. In fact, large portions of trend for insurers such as GHMSI are highly predictable. Their contracting department is continually negotiating provider reimbursement rates and locking them in for extended periods of time. Likewise, the schedule for drugs to go generic and the likely price impact is known well in advance. GHMSI's market dominance also provides them with substantial leverage in controlling provider reimbursement rates. The fact that GHMSI has had underwriting profits each and every year since at least 1995 is a good indication of how predictable trend is for GHMSI.

Milliman notes[11] that "BCBS underwriting results for the system as a whole changed somewhat beginning in 1989." This is an understatement: BCBS underwriting results changed dramatically immediately following the adoption of RBC requirements in the early 1990's.[12] Also, Milliman notes[13] that "The losses during 1986-88 were especially severe. We… do not believe that the circumstances leading to losses of this magnitude are likely to occur today." Despite these acknowledgements, Milliman included the results of the 1980's, with significantly higher operating results fluctuation, in their risk modeling. This has the likely effect of overstating the magnitude of underwriting loss related to cycle risk.

Milliman notes[14] that they have quantified adverse cycle results based on 1980-2007 data at the 75th, 80th, 85th and 90th percentiles. Given both the significant change in industry approach as a result of the adoption of RBC requirements and the significant changes in the way GHMSI has been regulated since 1993, Milliman

[10] See page 41 of Milliman.
[11] See page 28 of Milliman.
[12] See Chart 5 on page 38 of Milliman.
[13] See page 33 of Milliman.
[14] See pages 36-37 of Milliman.

should revise their analysis using only data for 1992 and later with respect to all insurers, and for 1994 and later with respect to GHMSI specifically (the first full year in which it operated as a regulated entity).

We note Milliman was engaged approximately three years ago by GHMSI to conduct a similar RBC analysis, based on the then current 2004 NAIC filing data. Milliman's current version (2008) is much akin to the previous report, not only in format but also content. Milliman's simulation program was used for both reviews with the following table illustrating the differences between the two reports:

Percentile of Simulated Operating Loss Cycles	All Risks Cumulative Loss for Adverse Cycle 2005 Report	All Risks Cumulative Loss for Adverse Cycle 2008 Report
98%	20% - 23%	15% - 19%
95%	17% - 20%	13% - 16%
90%	14% - 17%	10% - 13%

The range of cumulative loss cycle amounts produced in each period show that there is an approximately 17-25% reduction in the 98th percentile of simulated operating losses over the three year period. We note that the cumulative cycle loss percentages are related to non-FEP insured premium and incorporate all losses, including those from interest rate and portfolio asset value risks.

The only apparent item that has materially changed in the GHMSI business model between the time of the 2005 Milliman report and the 2008 Milliman report is that the company reported an additional three years of uninterrupted positive earnings. This apparently results (we can only surmise since Milliman's model is of a "black box" nature) in Milliman reducing the likely impact of future loss cycles by the aforementioned 17-25%. While we believe reduction in excess capital is directionally correct, we do not believe this goes far enough. Specifically:

1) If the 2008 report were consistent with the results of the 2005 Report, we would expect to see a greater drop in the recommended surplus range. Given the 17-25% reduction in the simulated operating cycle losses we would expect a similar reduction in the surplus needed above the minimum RBC threshold. Milliman's 2005 recommended surplus range (assuming 12.5% premium growth) at the high end was 700 - 750 percentage points above the 200% RBC threshold—that is, total RBC of 900-950%. If there was a 20% reduction in loss cycle we would have expected to see a reduction of 150 - 175 percentage points in the amount needed above the 200% RBC level. Instead their latest report shows only a 100 percentage point reduction in the amount needed above the 200% RBC level, and some of that reduction is due to a reduction in premium growth rate from 12.5% to 12%.

2) If the 2008 expectations for operating loss cycles could drop so significantly with 3 additional years of consistent earnings, what impact would it have had if Milliman had only used the years 1995-2008 in their model and eliminated the loss fluctuations related to the years 1980-1994, which were prior to RBC standards and GHMSI's revised regulatory environment? Also, what would be the impact of accounting for investment income and for expected profitability from FEP and non-comprehensive insured business? We do not have the benefit of reviewing Milliman's full model to precisely understand the impacts, but our estimate is that cycle losses of 9% to 13% would cover the targeted 98th percentile – including interest rate and portfolio asset value risks. Using this reduced range of cycle losses, the RBC ratios in the Milliman model could be reduced by about 35% or 200-225 percentage points at the high end of their estimated range.

The CareFirst report illustrates this point. While Chart D of the CareFirst report shows underwriting gains (these are in addition to investment income) every year since 1999, Chart C of the report shows RBC ratios that were highest in 1999 (970%) and have decreased year-to-year in six of the nine years (note: this is despite the absolute dollar volume of surplus increasing every year). The 12/31/2000 RBC ratio (848%) was virtually identical to the 12/31/2008 ratio (845%). It strains all credibility to argue that GHMSI was equally secure in 2000 (with $248 million of surplus on $1.244 billion of revenue) as they were in 2008 (with $687 million of surplus on $2.744 billion of revenue)—particularly with 55% of 2008 revenue coming from low-risk Federal Employees Health Benefit Plan (FEP) premiums.

e. Surplus-Reducing Items

In a footnote to their pro forma modeling, Milliman states[15] that they have assumed the elimination of GHMSI's deferred tax asset with an adverse loss period. Since the Milliman report was produced on December 4, 2008 and GHMSI, as mentioned earlier in this analysis, increased its deferred tax asset from $4 million to $137 million at 12/31/2008, it is questionable as to whether this assumption by Milliman is now valid or appropriate.[16]

GHMSI's surplus would have had a large increase in 2008 over 2007 if not for a sudden large increase of $186 million in non-admitted assets that in 2008 in effect reduced its admitted capital by 21 percent. GHMSI would have declared a surplus ratio of 1,067%, had those assets not been transferred to non-admitted categories. As $133 million of this increase was in the Net Deferred Tax Asset (which went from $4 million the prior year to $137 million in 2008) and another $42 million of the increase was simply an unexplained statement write-in as Other Assets Non-admitted, further explanation is required by GHMSI management to establish that these asset classifications are appropriate and not just an attempt by management to keep reported surplus levels lower and avoid the mandate to engage in community health reinvestment to the maximum feasible extent.

f. Consideration of Parent

Milliman notes that the surplus goal for GHMSI is based on the perspective of GHMSI as a combined operation including its subsidiaries.[17] However, they fail to note that GHMSI is part of a larger group (CareFirst) with substantial capital and a vested interest in GHMSI's continued viability, and that could potentially be a source of funds if needed by GHMSI.

g. Consideration of Subsidiaries

GHMSI's RBC levels are directly affected by the 40% ownership in subsidiary, CareFirst BlueChoice. Given GHMSI's partial ownership in CareFirst BlueChoice, GHMSI's RBC calculations reflect the associated capital and surplus (40%) and the RBC-ACL (again 40%) of the subsidiary. The Milliman Report does not attempt to segment these two entities in the analysis.

[15] See page 54 of Milliman.

[16] These assets were developed during a period of unprecedented market downturn, negating Milliman's argument for ignoring them.

[17] See page 24 of Milliman.

The effect on GHMSI from their ownership in the BlueChoice subsidiary is demonstrated below:

Capital & Surplus
GHMSI 2008 = $686.8 million
CareFirst BlueChoice 2008 = $406.7 million (100%)
GHMSI's ownership position in BlueChoice 2008 = $162.7 million (i.e. 40% of $406.7 million)
GHMSI as a stand alone has 2008 Capital & Surplus of $524.1 million ($686.8 million less $162.7 million)

RBC-ACL
GHMSI 2008 = $81.3 million
CareFirst BlueChoice 2008 = $55.2 million (100%)
GHMSI's ownership position in BlueChoice 2008 = $22.1 million (i.e. 40% of $55.2 million)
GHMSI as a stand alone has 2008 Capital & Surplus of $59.2 million ($81.3 million less $22.1 million)

Ratios
Capital & Surplus to RBC-ACL Ratio:
GHMSI 2008 only = 885% ($524.1 million / $59.2 million)
CareFirst BlueChoice 2008 = 736% ($162.7 million / $22.1 million)

The inclusion of BlueChoice's surplus position (and respective RBC-ACL) affects both the numerator and denominator of the GHMSI-only RBC-ACL calculation. GHMSI's current surplus position is 40 percentage points greater when its ownership interest in Blue Choice is appropriately removed from the calculation.

If we assume that BlueChoice has active capital management and holds only the minimum necessary to be financially sound, then comparing the ratio of the BlueChoice RBC-ACL level (736%) versus the GHMSI only ratio of 885% would indicate that GHMSI surplus is about 150 percentage points too high. At a similar 736% RBC-ACL level, GHMSI would have a surplus level of $435.7 million, which compares to the GHMSI-only surplus of $524.1.This is a reduction of $89 million, or approximately 17% less than GHMSI's actual 2008 RBC.

h. Other CareFirst Management Influences Affecting GHMSI

Milliman discusses Overhead Expense Recovery Risk suggesting, for example, that this might result from a large group terminating unexpectedly and a resulting decrease in retention revenue or ASC fees.[18] However, they fail to quantify this risk in any manner or explain how it would relate to a company such as GHMSI, which has a track record of continuous increases in revenue for at least the last decade.

GHMSI has 90% ownership of Service Benefit Plan Administrative Services Corporation (SBP), a third party administrator (i.e., administrative services company, or ASC). Through SBP, GHMSI collected services fees of approximately $70 million for 2007 and 2008. This revenue was recorded in the financials as a negative expense, thus reducing the general expenses of GHMSI.

Milliman does discuss other business risks, including ASC risks, and says that such risks are not insignificant, but then fails to quantify any or all of them unless they do so within the context of their Monte Carlo "black box". [19]

[18] See page 43 of MIlliman.
[19] See page 43 of Milliman.

i. Other Comments on Milliman Report

As discussed elsewhere in this document, there are many reasons to be critical of and disagree with the Milliman report's conclusions on page 56. Numerous points to be made outside of those already discussed add to the bias of producing a higher level of surplus than would be reasonably acceptable.

Omitted Estimates

We find it particularly disingenuous of Milliman to simply leave a blank in Chart 7 under the Loss of Trademark floor for the 12% premium growth and 12% underwriting loss cycle scenario. As one of four basic scenarios that they chose surely Milliman's omission has some significance. After our careful review we have determined that the most likely reason for the omission is that the results using Milliman's methodology produced a surplus range lower than they or GHMSI management wanted. Based on our review, we believe that, if Milliman had not made its unexplained omission, this missing range they would have calculated would be 700-750%.

Competitor Consolidation and Scale[20]

Milliman cites a couple of the supposed advantages that GHMSI's competitors enjoy, including the ability "to aggressively build and contract with provider networks" and "negotiating clout"[21]. It is our experience that what creates true negotiating clout is a high market share in a limited geographic area. It is our opinion that none of the "large and jumbo-sized companies" that Milliman references has anything close to the market share that GHMSI does in its primary geographic markets. Furthermore, the real advantages that GHMSI enjoys[22] in its primary geographic markets due to its unique charter are likely to more than offset any of the supposed advantages that the "large and jumbo-sized companies" might enjoy.

Demand for Surplus

It is common practice for companies the size of GHMSI to have capital investment budgets several years into the future. Despite CareFirst citing[23] a possible demand of surplus being "infrastructure upgrade: the costs of technology and systems to handle the ever greater complexity", the company and Milliman both fail to quantify to any degree what those future spending needs might be or how they might relate to actual such spending over the last few years.

Milliman asserts[24] in several parts of their report that surplus is needed to enable periodic investments in technology. However, their failure to quantify this argument is indicative of its weakness. Note the following counterpoints:

- Milliman notes[25] that capital investment in technology has become virtually continuous. If so, it should be part of the operating budget and not supported by surplus.
- James C. Robinson[26] of the Robinson Health Affairs report notes[27] in a 2004 analysis of the then proposed for-profit conversion of CareFirst that, "As detailed in the CareFirst debate and evident in

[20] See page 9 of Milliman.
[21] See page 9 of Milliman.
[22] Such as favorable tax treatment, brand recognition, etc...
[23] See page 4 of CareFirst report and page 10 of Milliman.
[24] See for example pages 9, 10 and 16 of Milliman.
[25] See page 10 of Milliman.

other states, Blues plans have adequate cash flow to finance investments in IT without recourse to equity capital and in fact are investing at rates similar to their for-profit competitors."

In addition, Milliman identifies[28] the primary independent risk category for GHMSI as net underwriting loss due to rating parameter inadequacy. They also identify risks from unpaid claims liability fluctuation as related to fluctuations in rating parameter adequacy. They fail to note, however, that surplus is not the first line of defense against misestimates on either of these risks:

- With regard to their discussion on rating parameter adequacy[29], Milliman fails to note that there GHMSI routinely includes a specific risk and contingency factor in rate setting. The size of this factor is usually inversely proportionate in size to the number of people insured just as expected variation in results varies in inverse proportion to the number of people insured. This risk and contingency factor provides a margin that can absorb adverse deviation from the most likely or best estimate claims that are usually used in pricing.

- With regard to the discussion on estimating claim liabilities Milliman indicates[30] that to the extent that actual claim runoff differs from the estimate for unpaid claims that surplus will be correspondingly overstated or understated. Milliman fails to note, however, that health insurers, including GHMSI, do not reserve for unpaid claims liabilities on a best estimate basis. Rather, their claim reserves include a provision for adverse deviation. Typically, this provision is 5-10% of estimated claims. This amounts to additional hidden surplus that can absorb some of the risk of adverse deviation and prevents an immediate impact on surplus when most likely estimates emerge as insufficient.

There are several layers of protection in which an insurer takes into account the possibility of estimation error. Contrary to Milliman's implication, surplus is a back-up line of defense against an insurer's misestimates of risk, not the first line.

j. Milliman's Monte Carlo Simulation

The Milliman analysis relies on Monte Carlo Simulation. Monte Carlo Simulation is a method of generating values from a known distribution for the purposes of experimentation, accomplished by generating uniform random variables and using them to produce failure times that would conform to the desired input distribution. This technique uses sampling from a random number sequence to simulate characteristics, events, or outcomes with multiple possible values. In layman's terms, Monte Carlo simulation is a computer model that first examines a large number of possible scenarios then produces ranges of possible outcomes or success rates.

Milliman states[31] they have "developed what we believe is a reasonable range of possible values for each risk and contingency category. Possible outcomes for each risk and contingency category are divided into a discrete number of representative outcome values, to each of which we have assigned a probability of likelihood."

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[26] Robinson, a professor of health economics at the University of California, Berkeley, and a contributing editor to *Health Affairs,* works on managed care, medical groups, and capital markets in this and other journals is widely cited in the health services literature, among Wall Street analysts, and within the healthcare industry itself.

[27] See page 68 of the July/August 2004 Robinson Health Affairs report entitled, "For-profit, non-conversion and Regulatory Firestorm at CareFirst Blue Cross Blue Shield."

[28] See page 46 of Milliman.

[29] See pages 40-41 of their Report.

[30] See page 42 of Milliman.

[31] See page 46 of Milliman.

Milliman does not disclose any specifics about any of the risks or contingencies, their likelihood, or their representative values so that the reasonability of their judgments can be reviewed, essentially presenting a "black box". CareFirst offers[32] in their July 31, 2009 report to provide briefings and "guided tours" of the Milliman methodology and its implications as part of the DISB Commissioner's hearing and review process. As we have the requisite background[33] CareFirst says is necessary to understand the Milliman models, we would like to accept that offer and immediately conduct an objective review.

k. Comparable Company Analysis

We have considered GHMSI's product profile in identifying the following peer companies:

- BC&BS of Georgia Inc.
- BCBSM Inc.
- BlueCross BlueShield of TN Inc
- Horizon Healthcare of NJ Inc.
- Premera Blue Cross
- QCC Insurance Co.
- Regence BlueCross BlueShield

In addition to these peers above, we also make a comparison to CareFirst of Maryland Inc., a sister company of GHMSI. In Appendix B, we illustrate various company financial results and corresponding metrics to give some indication on the experiences of each company, along with the inherent management of surplus. We do note that some of these peers are for-profit entities while GHMSI is a not-for-profit company.

The two metrics that further substantiate GHMSI's excessive accumulation of surplus are:

1. Net Reserves / Capital & Surplus (%) - Measures a company's financial ability to pay claims if reserves prove to be inadequate. Such payments must come from the insurer's surplus.

2. ACL /Assets (%) – Measures the amount of risk capital to the total assets

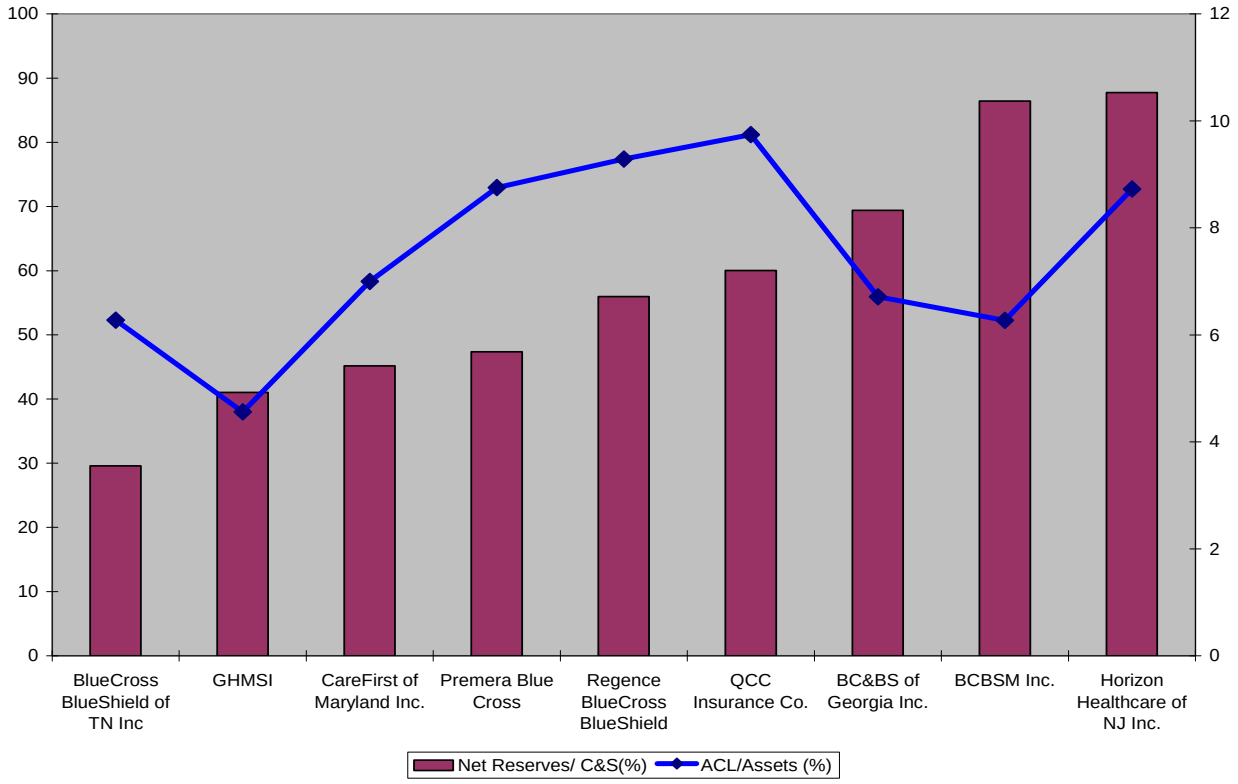
As can be seen in the following chart:

- The ratio of GHMSI's net reserves to capital and surplus is the second lowest among the peer group and is only two-thirds of the average of the peer group.

- The ratio of GHMSI's ACL to assets is the smallest of the peer group and 27% lower than the second-lowest in the peer group. GHMSI's ratio of ACL to assets is only 57% of the average of the peer group.

Thus, both of these ratios further corroborate the fact that GHMSI's surplus compared to objective measures of risk indicates that their surplus is out of line with similar sized insurers to the point of being excessive.

[32] See page 8 of CareFirst.
[33] See page 8 of CareFirst.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BlueCross BlueShield of TN Inc
GHMSI
CareFirst of Maryland Inc.
Premera Blue Cross
Regence BlueCross BlueShield
QCC Insurance Co.
BC&BS of Georgia Inc.
BCBSM Inc.
Horizon Healthcare of NJ Inc.
Net Reserves/ C&S(%)
ACL/Assets (%)

II. GHMSI's Actual 2006 to 2008 Surplus Levels

The 2008 GHMSI financial results indicates $687 million of surplus with a RBC-ACL of $81.3 million, thus producing an overall RBC ratio of 845% (as we show in the table in Chapter 2, Section II). As with any ratio, there is a numerator and a denominator, and changes in either one affect the ratio.

As noted in Section Ia of this chapter, the RBC formula is a mechanical formula to determine a minimum level of capital based on certain parameters. The 200% threshold is the highest ratio in the regulatory construct and the formulaic results do not necessarily continue to be rational as significantly higher ratios to the basic authorized control level of capital are determined.

An example of the breakdown of the meaningfulness of the ratios at significantly higher RBC ratios can be illustrated by looking at the GHMSI experience at year-end 2006 versus year-end 2007. At year-end 2006, GHMSI had $663 million of total risk adjusted capital and a RBC ratio of 955%. At year-end 2007, GHMSI had $754 million of total risk adjusted capital and its RBC ratio had reduced to 916%. The reduction of the RBC ratio from 2006 and 2007 would seem to say that the company was in a riskier capital position at the end of 2007 than they were a year earlier, but were they?

- Total risk adjusted capital ("TAC") increased by more than $90 million from 2006 to 2007.

- The formulaic authorized control level of risk-based capital ("ACL-RBC") increased from $69.4 million at year-end 2006 to $82.3 million at year-end 2007, an increase of almost $13 million. While this increased the need for surplus, our point here is that the increase in TAC increased by a much greater dollar amount.

- Premium revenue increased from $2.456 billion in 2006 to $2.815 billion in 2007, an increase of $359 million.

With incremental ACL-RBC of $13 million, a huge incremental TAC of $90 million, and incremental premium revenue of $359 million it is clear that GHMSI was more financially stable and secure at the end of 2007 than at the end of 2006. Yet the formula might lead a casual reviewer to believe otherwise.

Also, reviewing reported RBC ratio trends cannot be done in a contextual vacuum. A reviewer should be aware of management actions that may have been intentionally undertaken that affect the RBC ratio. For example, Carefirst[34] (including GHMSI) pledged in 2005 to slow surplus growth by quoting premium rates 3% lower than the expected medical trend. Therefore, the fact that the 12/31/2005 RBC ratio was lower than the 12/31/2004 RBC ratio should be recognized as an intentional result as opposed to the result of any poor experience or other trend as CareFirst suggests in their 7/31/2009 report.[35]

[34] See page 13 of the Lewin Group's January 25, 2007 report "Policy Options Regarding Surplus Accumulation in the Washington Health Insurance Market."

[35] Note their contention on page 6 that, "It is equally apparent that GHMSI has been declining in its position in the range over the last several years. This reflects the generally poor condition of the economy and the financial markets as well as the continued strong upward climb of health care costs in this region."

This table directly below illustrates our calculation of GHMSI's 200% RBC-ACL for the years 2006 to 2008. Note, as previously mentioned, that the GHMSI subsidiary contributes at a meaningful level to the RBC results for GHMSI.

Summary	2006	2007	2008
Estimated Components of RBC			
H-0	34,371,994	38,762,802	44,121,514
H-1	26,594,758	23,036,491	26,985,889
H-2	97,954,611	114,977,060	110,535,859
H-3	4,791,754	5,548,535	6,104,697
H-4	26,262,518	29,326,137	32,380,775
Covariance Effect (H-1 to H-4)	(50,650,948)	(51,887,344)	(57,549,649)
GHMSI only 200% RBC-ACL	104,952,693	121,000,879	118,457,572
RBC - 200% of ACL	139,324,688	159,763,681	162,579,085
RBC - 200% of ACL (actual)	138,887,912	164,606,546	162,507,750
A/E%	100%	103%	100%
Subsidiary	34,371,994	38,762,802	44,121,514
GHMSI only	104,952,693	121,000,879	118,457,572
Sub % of Total	24.7%	24.3%	27.1%

The next table illustrates our estimated allocation of the 200% RBC-ACL for each line of business for 12/31/2008. We provide the following remarks in regards to this line of business capital requirement analysis. Specifically,

(1) We assumed for the corporate line, which primarily includes the excess of assets over the liabilities, that the excess assets include all the unaffiliated common stock as well as the lower grade bonds.

(2) We earmarked the H-0 affiliated subsidiary RBC contribution to the corporate line. The corporate line contributes approximately 12% of the GHMSI only RBC requirement.

(3) The ASO business, which one would intuitively think produces a very low RBC requirement (since GHMSI does not retain any insurance risk on this business), does actually produce almost 10% of the GHMSI- only RBC requirement.

(4) The comprehensive medical line of business produces close to 60% of the total GHMSI only RBC requirement.

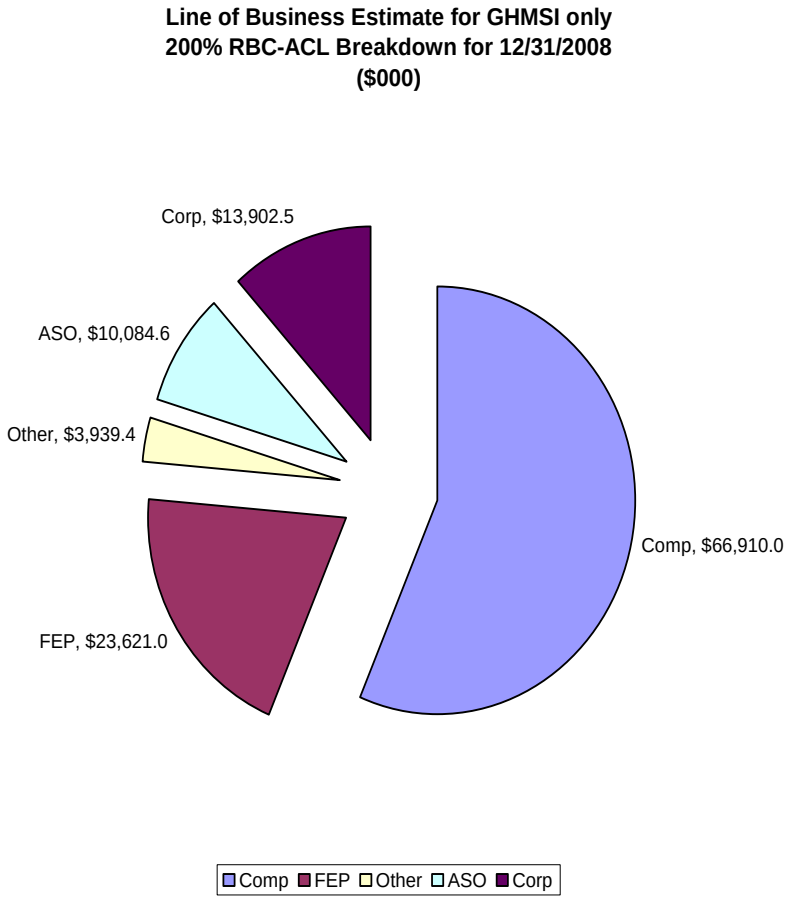
(5) The Federal Employee Plan produces almost 20% of the requirement RBC level for GHMSI only.

(6) The other lines produce very negligible RBC levels and do not warrant any special comments.

Summary	Compreh.	Med Supp	Dental	Fed Ee	Other	ASO	Corporate	Total
Estimated RBC Components								
H-0	0	0	0	0	0	0	44,121,514	44,121,514
H-1	449,449	15,202	26,188	0	17,623	0	26,477,427	26,985,889
H-2	77,493,663	1,380,741	1,477,122	28,379,756	1,804,577	0	0	110,535,859
H-3	2,796,009	46,759	31,283	201,078	31,932	2,383,982	613,654	6,104,697
H-4	10,911,552	138,439	510,920	8,786,719	373,955	11,659,189	0	32,380,775
Sum (H-1 to H-4)	91,650,673	1,581,142	2,045,513	37,367,553	2,228,088	14,043,171	27,091,081	176,007,221
Covariance Base	78,309,320	1,388,535	1,563,519	29,709,551	1,843,277	11,900,422	26,484,537	151,199,161
Covariance Effect (H-1 to H-4)	(11,399,287)	(169,145)	(368,420)	(6,088,592)	(318,351)	(1,815,801)	(12,581,994)	(32,741,590)
GHMSI only 200% RBC-ACL	66,910,033	1,219,390	1,195,100	23,620,958	1,524,927	10,084,621	13,902,543	118,457,572
RBC - 200% of ACL	66,910,033	1,219,390	1,195,100	23,620,958	1,524,927	10,084,621	58,024,057	162,579,085
RBC - 200% of ACL (actual)								162,507,750
A/E%								100.0%
Subsidiary	0	0	0	0	0	0	44,121,514	44,121,514
GHMSI only	66,910,033	1,219,390	1,195,100	23,620,958	1,524,927	10,084,621	13,902,543	118,457,572
GHMSI only % of Premium*	4.5%	8.0%	1.8%	1.5%	8.2%			

In the chart below we display our estimate of the Loss of Trademark Floor (i.e. 200% of RBC-ACL) for each line of business. Note that this chart does not include the BlueChoice contribution as an affiliate of GHMSI. We estimate that GHMSI's non-ASO business requires a Loss of Trademark Floor of approximately $95 million, while the ASO requires approximately $10 million. Approximately $14 million is allocated to the corporate line, primarily reflecting GHMSI's large excess surplus.

The fact that GHMSI has other risks and product lines materially contributing to the RBC-ACL shows that simply looking at non-FEP (i.e. Comprehensive Medical and Hospital) is nearsighted by Milliman.



CHAPTER 4 – A Reasonable Level of Surplus

As part of our analysis we identified issues and areas of bias found in Milliman's Report. This section quantifies the effects that adjusting to more objective assumptions have on establishing an appropriate range for a financially sound surplus position for GHMSI.

Based on Milliman's "black box" Monte Carlo simulation, Milliman concludes[36] that surplus equal to 12-16% (15-19% including the impact of interest rate and asset valuation risks) of annual non-FEP insured premiums is needed above the 200% RBC target to absorb 98% of potential multi-year loss periods. Similarly, Milliman concludes that surplus equal to 9-12% (10-13% including the impact of interest rate and asset valuation risks) of annual non-FEP insured premiums is needed above the 375% RBC target to absorb 90% of potential multi-year loss periods.

Based on our analysis of their report, we believe these amounts are too high. Specifically, working from the estimates that Milliman presents, we correct for Milliman's (1) omission of FEP and non-recognition of other non-comprehensive product lines, (2) exclusion of interest rate and asset valuation risks; and (3) high premium growth assumptions.

The following adjustments were made to the Milliman assumptions in order to produce a realistic and prudent level of surplus for GHMSI:

1) We recognize that non-FEP insured premium represents only about 45% of the revenues for GHMSI and that other product lines – FEP, Medicare Supplement, Dental and Other – are consistent profit generators that can reasonably be expected to offset losses of approximately 2% of non-FEP insured comprehensive medical premiums per year during an insured medical Operating Loss Cycle. This equates to reducing our cumulative cycle losses to 9% to 13% versus the 15-19% Milliman standard. 9-13% of non-FEP insured premium equates to $113 to $164 million of surplus above the 12/31/2008 GHMSI 200% level of $162.5 million (or a total of $275 to $327 million); and

2) Milliman does not explicitly show the impact of the interest rate and asset valuation risks in their 750% to 1050% recommendation other than have a footnote. We believe that it is imperative to include these types of risks as part of the analysis. If we were to exclude these same risks, akin to Milliman, our resulting range would have been even lower.

3) Consistent with GHMSI's actual experience from 2003 – 2008, we use 7 – 8% premium revenue growth as a realistic range for a 3-year operating loss cycle as opposed to the unrealistic 12 – 14% used by Milliman. Using these revised growth rates in pro forma projections adds $50 million to $100 million to the previous 12/31/08 needed surplus total to create a final needed surplus range of $325 to $427 million to offset both operating loss cycle and interest rate and portfolio asset value risks.

The above analysis is based on the reported non-FEP insured premium for 2008 of approximately $1.26 billion, which can be found in the 12/31/2008 NAIC annual statement's Analysis of Operations by Line of Business.

We summarize the results of our necessary and prudent adjustments to the Milliman approach in the following table (the equivalent to Milliman's Chart 7 of their report).

[36] See page 53 of their report.

RBC Ratio Needed to Remain Above Minimum Surplus Floor Levels
Estimated Results under Range of Operating Loss Cycles
Inclusive of GHMSI's 40% Ownership in BlueChoice

Underwriting Loss Cycle Including Asset Valuation Risks[1]	Early Warning Monitoring Floor (375% of RBC-ACL) @ 90% Percentile of Adverse Risks[1]	
	7% Premium Growth	8% Premium Growth
4%	525-550%	550-575%
7%	575-600%	600-625%

Minimum = 525% Maximum = 625%

Underwriting Loss Cycle Including Asset Valuation Risks[1]	Loss of Trademark Floor (200% of RBC-ACL) @ 98% Percentile of Adverse Risks[1]	
	7% Premium Growth	8% Premium Growth
9%	400-425%	425-450%
13%	475-500%	500-525%

Minimum = 400% Maximum = 525%

Note: [1] As a percentage of non-FEP premium

We continue to believe that building surplus so as to be 90% certain of avoiding the 375% early warning reporting to the BCBSA is not consistent with District of Columbia legislation that established the standard, "A corporation shall engage in community health reinvestment to the maximum feasible extent consistent with financial soundness and efficiency.[37]" We believe this law makes it clear that community health reinvestment is a higher priority than accumulating surplus to levels beyond that which would ensure financial soundness and efficiency. Since avoiding a reporting requirement to an association (the 375% threshold) does not of itself enhance financial soundness and efficiency, we do not believe it should be a corporate objective given the District of Columbia mandate to engage in community health reinvestment to the maximum feasible extent. Nonetheless, for comparative purposes we have developed those ranges shown above of RBC ratios that will ensure financial soundness for GHMSI under each of the 200% and 375% standards.

Using the questionable standard of avoiding the BCBSA Early Warning Monitoring Floor with 90% certainty leads to the conclusion that a more reasonable and appropriate level of surplus for GHMSI falls into the range of 525% to 625% RBC (or a total of $427 to $508 million or the equivalent reduction of $179 to $260 million from their 12/31/08 reported surplus number).

Using the wholly defensible standard of avoiding the Loss of Trademark with 98% certainty leads to a conclusion that a more reasonable and appropriate level of surplus for GHMSI falls into the range of 400% to 525% RBC (or a total of $325 to $427 million or the equivalent reduction of $260 to $362 million from their 12/31/08 reported surplus number).

[37] D.C. Act 17-704, Sec.6a.

	Loss of Trademark Threshold	BCBSA Early Warning Monitoring Floor
Proposed GHMSI 2008 RBC Ratio	400% to 525%	525% to 625%
Proposed GHMSI 2008 Surplus Level	$325 to $427 million	$427 to $508 million
Proposed GHMSI 2008 Surplus Reduction from Actual Level	$260 to $362 million	$179 to $260 million
Potential re-class of the 2008 increase in Non-Admitted Asset	$0 to $181 million	$0 to $181 million
Proposed GHMSI 2008 Surplus Redundancy to be Released (i.e. effective of non-admitted asset being admitted)	$260 to $543 million	$179 to $441 million

If the increase in non-admitted assets during 2008 is determined to be questionable, this would effectively increase GHMSI's surplus. Thus the aforementioned recommendation (i.e. at the Loss of Trademark Threshold) on the excess surplus would increase from $260 million, at the lower end, to $543 million, at the upper end.

CHAPTER 5 - Conclusions

An educated reader of the CareFirst and Milliman documents will surely understand that a prudent amount of surplus is necessary for an insurer to remain financially healthy. However, an egregious amount, such as GHMSI's at 12/31/2008 is simply unnecessary. We assessed GHMSI's history and experience along with the corporate structure and business operations, including the products sold and the risks therein, and we must conclude the amount of surplus held by GHMSI is not optimal but rather grossly in excess of a reasonable amount to ensure financial soundness.

Milliman stated[38] in October 2004, "A maximum level for surplus, by contrast, represents the point at which additional accumulation of funds does not contribute meaningfully to furthering the goal of ensuring the future viability of the company or protecting its members. By definition, exceeding such a level does not add to the well being of the company." It is our belief that GHMSI exceeds this maximum level.

We have suggested numerous areas where the calculation of the recommended target surplus range for GHMSI as determined by Milliman seem unduly conservative or in error.

Likewise, we have concerns that GHMSI orchestrated a lowering of the reported RBC ratio at 12/31/08 due to the sudden material increase in non-admitted assets as of that date. Therefore, rather that accepting the 845% RBC-ACL ratio that the company offers at year end 2008, it is our opinion that the actual 12/31/08 RBC-ACL for GHMSI in reality ranges from the reported 845% to as high as ($686.8 + $181.0) / $81.3 = 1067%.

As part of our analysis, we calculated a target surplus range for GHMSI of 400% - 525%. This would suggest that GHMSI's 12/31/08 surplus should be managed to approximately $325 to $427 million (based on the reported $81.3 million of RBC-ACL). Actual surplus at 12/31/08 ranged from the reported $687 million to perhaps as much as $868 million, if the 2008 increase in non-admitted assets is inappropriate. Thus, we conclude that GHMSI has excess surplus at 12/31/08 of somewhere in the range of $260 to $543 million, the latter being if the 2008 increase in non-admitted assets is inappropriate.

In closing, it is our belief, based on the limited information provided to ARM and DC Appleseed by DISB, that an optimal level of surplus for financial soundness for GHMSI is not the unrealistically wide range of 750-1050% concluded by Milliman but rather a narrower range of 400 to 525% of RBC-ACL, which equates to the range of $260 to $543 million, the latter depending on the appropriateness of the 12/31/2008 non-admitted assets, in redundant and excessive surplus at 12/31/08.

[38] Page 14 of the Supplement to Milliman Report on Highmark Surplus Target Range.

APPENDIX A

What is Risk Based Capital? Why is it Important?

The insurance industry is unique in that an insurer's ability to meet its current and ongoing obligations to the policyholders is dependent upon adequate balance-sheet strength. Each U.S.-based insurance company must comply with minimum capital requirements or risk losing the right to continue selling product.

Separate risk-based capital models apply to life companies, property/casualty companies and health organizations. These different formulas reflect the differences in the economic environments facing these different companies. The common risks identified in the NAIC models include Asset Risk-Affiliates, Asset Risk-Other, Credit Risk, Underwriting Risk, and Business Risk.

The NAIC Risk-Based Capital system has two main components: 1) the risk-based capital formula, that establishes a hypothetical minimum capital level that is compared to a company's actual capital level, and 2) a risk-based capital model law that grants automatic authority to the state insurance regulator to take specific actions based on the level of impairment. Based on reviews performed as part of the NAIC Accreditation Program, 47 of the U.S. insurance jurisdictions have adopted laws, regulations or bulletins that are considered to be substantially similar to the NAIC's risk-based capital for Insurers Model Act.

Each formula recognizes the correlation between various types of risk. The formulas apply a covariance calculation to determine the appropriate risk-based capital. The levels of regulatory action are determined from the risk-based capital after covariance. This adjustment reflects the fact that the cumulative risk of several independent, not correlated, items is less than the sum of the individual risks. All the formulas keep insurance affiliate equity investment risk and off-balance sheet risk out of the covariance adjustment. The covariance adjustment follows the steps of adding together items that are believed to be correlated, so that what is left are groups of risk items believed to be substantially not correlated to each other. The covariance adjustment then squares these resulting groups, adds the resulting squares together and takes the square root of the sum of the squares. The covariance adjustment drastically reduces the importance of the smaller items and the dominance of the biggest items affected by the adjustment.

The covariance adjustment reduces the aggregate amount of risk-based capital in recognition of the fact that the risk is very remote that surplus will be simultaneously impaired by reductions in the value of the assets and increases in the value of liabilities. In the covariance adjustment, the greater the number of slices that the total risk-based capital is carved into (asset risk, underwriting risk, etc.), the greater the discount afforded by the covariance adjustment. As a rule of thumb, the greater the number of component pieces, the greater the effect of the covariance adjustment. Therefore, even if the formulas use the same risk factors for the same types of assets and liabilities, the results of the covariance adjustment can produce a difference in the final risk-based capital requirement for each insurance type.

There are five action levels, which are determined by comparing a company's Total Adjusted Capital to its Authorized Control Level Risk-Based Capital as computed by the risk-based capital formula. Total Adjusted Capital is compared to Authorized Control Level Risk-Based Capital because the Authorized Control Level Risk-Based Capital is the level at which an insurance commissioner can first take control of an insurance company – that is, control of the insurance company may be seized.

The level of required risk-based capital is calculated and reported annually. Depending upon the level of the reported risk-based capital, a number of remedial actions, if necessary, are available.

The ratio of Total Adjusted Capital to Authorized Control Level Risk-Based Capital results in the following action levels:

1. A company reporting total adjusted capital of 200% or more of minimum risk-based capital is a "no action" level company; nothing needs to be done by regulators (the majority of regulated insurers fall into this category).

2. Total Adjusted Capital of 150% to 200% of minimum risk-based capital institutes a Company Action Level under which the insurer must prepare a report to the regulator outlining the corrective actions the company intends to take. At this level, an insurer must submit to the insurance regulator, a comprehensive financial plan that identifies the conditions that contribute to the company's financial condition. This plan must contain proposals to correct the company's financial problems and provide projections of the company's financial condition, both with and without the proposed corrections. The plan also must list the key assumptions underlying the projections and identify the quality of, and the problems associated with, the insurer's business. If a company fails to file this comprehensive financial plan, this failure to respond triggers the next lower action level.

3. Total Adjusted Capital of 100 to 150% of minimum risk-based capital triggers a Regulatory Action Level initiative. At this level, an insurance company is also required to file an action plan, and the state insurance commissioner is required to perform any examinations or analyses to the insurer's business and operations that he or she deems necessary. The state insurance commissioner also issues appropriate corrective orders to address the company's financial problems.

4. Total Adjusted Capital of 70 to 100% of the minimum risk-based capital triggers an Authorized Control Level. This is the first point that the law authorizes the regulator to take control of the insurer. This authorization is in addition to the remedies available at the higher action levels. It is important to note that the law grants the insurance commissioner this power automatically. This action level occurs at a point where the insurer may still be technically solvent according to traditional standards – that is, the company's assets may still be greater than it liabilities.

5. Total Adjusted Capital of less than 70% triggers a Mandatory Control Level that requires the regulator to take steps to place the insurer under control. This situation can occur while the insurer still has a positive level of capital and surplus; although a number of the companies that trigger this action level are technically insolvent (liabilities exceed assets).

The NAIC's risk based capital (RBC) requirements were adopted in 1992. Establishing a 200% RBC standard as the first threshold below which any additional regulatory review takes place has proven more than satisfactory. This is evidenced by the fact that the standard has been in place for more than 15 years without modification or even public discourse on a need for modification[39]. It should be noted that the dropping below the 200% standard does not indicate bankruptcy, ruin or anything similar. Rather it signals that the carrier's margin of surplus sufficiency has crossed a threshold where company management should be actively looking to take action to keep the company's surplus from dropping further and if possible to enhance the company's surplus sufficiency. In order to inform regulators of the potential for capital inadequacy to develop, dropping below the 200% RBC threshold triggers a requirement for the carrier to do some additional reporting.

In addition to the NAIC RBC capital measurement, the rating agencies, like A.M. Best and S&P, have their own evaluating balance-sheet strength tools. The A.M. Best Co.'s Capital Adequacy Ratio (BCAR) is more

[39] It should be noted in contrast that the Health RBC formula has been under active and continuing review since 1992.

robust and flexible than the NAIC RBC formula. Just as the NAIC RBC formula, the BCAR model provides a quantitative measure of the risks inherent in a company's investment and insurance profile relative to its statutory capital and surplus.

The BCAR model isn't a pass/fail test; rather, it is used to measure a company's capital position, relative to A.M. Best expectations, as an integral part of the determination of an ongoing concern's financial strength rating. The BCAR model also has a degree of flexibility, i.e., analysts can use discretion in making adjustments to the model based on their knowledge of the company, making the model an interactive tool. These adjustments within A.M. Best's capital model provide a more economic and comparable basis for evaluating capital adequacy.

A.M. Best's assessment of balance-sheet strength also includes an analysis of an organization's balance sheet under generally accepted accounting principles at both the operating insurance company and holding company levels. The analysis of an insurer's GAAP capital position is similar in many respects to the analysis done on the statutory balance sheet. The GAAP analysis of an operating company incorporates a review of trends in various financial tests and ratios aimed at measuring the relative risk to the entity's capital base generated by its own activities. Meanwhile, the holding company analysis provides valuable insight into how activities outside of the insurance operations potentially could affect the insurer's capital position--either as a source of added financial flexibility and long term strength or as a potential drain on capital.

As for Standard & Poor’s rating approach to capital adequacy, their rating process will continue to be based on the belief that the results from the model are not a substitute for a broad-based analysis of an insurer's credit quality. Strength or weakness in other key areas, such as a company's market position, management and strategy, credit risk, liquidity risk, earnings performance, enterprise risk management (ERM), and financial flexibility can more than offset relative strength or weakness in capital adequacy. The areas of analysis are interconnected and their importance and influence on a rating will differ depending on company specific circumstances.

APPENDIX B - Peer Analysis

The peer analysis shown in the two tables below further illustrate how GHMSI compares to CareFirst Maryland and other comparable organizations.

Comparable Companies

Company Name	Net Premiums Written ($000) 2008	Direct Premiums Written ($000) 2008	Total Members (actual) 3/31/2009	Premiums per Member Month($) 2008	Medical Loss Ratio (%) 2008	Claim and CAE Ratio (%) 2008
BC&BS of Georgia Inc.	2,661,576	2,661,576	718,382	288	86.72	88.19
BCBSM Inc.	2,825,881	2,810,920	734,861	305	85.41	91.29
BlueCross BlueShield of TN Inc	2,942,268	2,942,268	1,167,924	207	81.74	85.17
Horizon Healthcare of NJ Inc.	2,483,819	2,483,819	692,461	313	85.07	89.21
Premera Blue Cross	2,508,780	2,515,658	623,914	305	87.58	92.20
QCC Insurance Co.	2,937,337	2,933,210	610,314	388	86.65	91.81
Regence BlueCross BlueShield	2,589,065	2,517,101	746,990	227	90.20	94.74
Peer Average:	**2,706,961**	**2,694,936**	**756,407**	**290**	**86.20**	**90.37**
Peer Median:	**2,661,576**	**2,661,576**	**718,382**	**305**	**86.65**	**91.29**
GHMSI	2,815,214	3,126,829	908,469	256	88.04	93.44
CareFirst of Maryland Inc.	1,833,811	1,476,031	451,233	327	88.87	92.40

Comparable Companies

Company Name	Total Assets ($000) 3/31/2009	Total Members (actual) 3/31/2009	RBC - Total Adjusted Capital ($000) 2008	ACL - Risk Based Capital ($000) 2008	Risk Based Capital Ratio (%) 2008	Net Reserves/ C&S (%) 2008	ACL/Assets (%) 2008
BC&BS of Georgia Inc.	1,151,417	718,382	425,894	77,264	551.22	69.39	6.71
BCBSM Inc.	1,694,150	734,861	520,167	106,269	489.48	86.44	6.27
BlueCross BlueShield of TN Inc	1,616,066	1,167,924	903,889	101,394	891.46	29.58	6.27
Horizon Healthcare of NJ Inc.	935,891	692,461	313,558	81,675	383.91	87.75	8.73
Premera Blue Cross	1,159,736	623,914	672,236	101,511	662.23	47.34	8.75
QCC Insurance Co.	1,052,119	610,314	480,306	102,496	468.61	60.02	9.74
Regence BlueCross BlueShield	930,509	746,990	486,293	86,411	562.77	55.97	9.29
Peer Average:	**1,119,890**	**756,407**	**543,192**	**93,860**	**572.81**	**62.36**	**7.97**
Peer Median:	**994,005**	**718,382**	**486,293**	**101,394**	**551.22**	**60.02**	**8.73**
GHMSI	1,782,088	908,469	686,780	81,254	845.23	41.02	4.56
CareFirst of Maryland Inc.	1,120,154	451,233	394,251	78,425	502.71	45.19	7.00

APPENDIX C – Initial Request List

Actuarial Risk Management compiled the following list of desirable company materials to conduct a thorough surplus review of a health organization, such as GHMSI.

General Company Materials

- RBC formula detailed report for the last five financial statements
- New product introductions (both development costs and miss-pricing risks)
- New product introductions (both development costs and miss-pricing risks)
- Money needed for operational improvements (especially new claims, provider network, and medical management systems)
- Financial Projections for at least a five-year period that reflects much of risks described within this list

Company Experience

- For as many years as feasible (especially through underwriting cycles):
    a. Medical Loss Ratios (MLRs)
    b. Operating Gains/Losses (Dollar Amount & % of Revenue)
    c. Net Income (Dollar Amount & % of Revenue)
    d. Above items by major LOB and Company in Total (also growth trends by major LOB)
- Industry (Blues and Non-Blues) experience through several underwriting cycles; If possible range of experience across companies
- Annual Medical Trends; for company being reviewed (probably not practical for industry or other companies); Company's Medical Trends vs CPI Medical Trends

Industry Risks

- Concentration of risk (e.g. are there two or three employer/association contracts that, if lost, or experienced high loss ratios for a couple of years would create material financial issues for the Company)
- Pricing risks
    a. Impact of miss-pricing renewal medical trends for a couple of years
    b. Impact of miss-pricing new business for a couple of years
    c. "Prospective" Pricing risk (i.e. agreement to price based on the Company's future cost containment goals)
- Competitive risks (e.g. loss or potential loss of market place dominance)
- Severity of asset (market value) losses such as those experienced over the past couple of years
- Operational risk (e.g. loss of control over claim adjudication process)
- Ability to fund and accept the risk of a major strategic Change in the underlying nature of the business itself (e.g. movement from insurance to delivery of care)
- Ability to withstand/defend lawsuits (especially with respect to provider networks and medical management)

Company Governance

- Regulatory issues
    a. Difficulty and lags in getting required rate increase approvals for regulated segments
    b. Healthcare reform at the State or Federal level
    c. Medicare & Medicaid reimbursements for risk products (or, effective elimination of the private sector)
    d. Compliance Costs (e.g. NAIC Model Audit Rule & Sarbanes Oxley)
- Provider contracting issues (e.g. might an intransigent set of providers (one or two hospitals in particular) create material financial issues for the Company

APPENDIX D – About Actuarial Risk Management

Emerging global provider of actuarial, employee benefit, and risk management services, Actuarial Risk Management (ARM), leads the way in developing the next generation of actuarial services. Companies may face similar challenges and comparable risks while sharing similar goals, but ARM recognizes that no two companies are exactly alike. Thus, the standard “one size fits all” approach traditionally utilized by many actuarial firms is both antiquated and ineffective. ARM will deliver more quality value at a more respectable cost than typical competitor’s deliverables and costs.

ARM’s actuarial and risk management experts provide our clients with a flexible hands-on partnership, which covers all risk sectors including: Insurance (P&C, Life, Annuity and Health), Health Care, Employee Benefits, Retirement and Banking. Increased accessibility to top industry experts across all disciplines is the cornerstone of this revolutionary business model. In addition to our highly skilled actuaries, compliance experts and risk managers found within ARM, clients benefit from the knowledge and expertise of the extensive network of industry experts located globally. The ARM Network, which consists of more than a dozen core member firms, has over 50 highly skilled consulting actuaries and risk experts averaging over 20 years experience across all disciplines. ARM seamlessly oversees the delivery of all risk management and actuarial services by coordinating the appropriate resources for each project based on complexity and client needs.

ARM’s successful business model and hands-on approach continues to earn the trust and respect of a growing number of public and private organizations. ARM is an independent member of the BDO Seidman Alliance and since 2006 has been the sole provider of actuarial services within BDO Seidman, which is the U.S. member of BDO - the fifth largest global accounting and consulting firm.

ARM’s capabilities also include granting customers access to a broad range of non-actuarial services, ranging from captive services, insurance operations, retirement administrators, asset valuation experts, pharmacy benefit manager (PBM) specialists, health care cost specialists, life settlement underwriters to employee benefit strategists.

ARM brings the experts to the clients using an innovative business model that stresses no cookie-cutter deliverables at a price point that is more reasonable for access to the industry’s subject matter experts.

APPENDIX E – ARM's Consulting Team

Corwin K. Zass ASA, MAAA, FCA
Principal & Consulting Actuary

In his 15 plus years as an actuary, Mr. Zass evolved from working in a multi-line insurance organization as Chief Actuary to a Consulting Actuary of a regional firm to principal of Actuarial Risk Management. Mr. Zass directs all engagements and conducts peer reviews for actuarial and risk management assignments.

As a qualified actuary, Mr. Zass has extensive knowledge of Probability & Statistics, Financial Mathematics, Micro and Macro Economics, Construction of Actuarial Forecasting Models, Advanced Finance, and Financial Reporting. Over the years, Mr. Zass consulted on a variety of assignments across the insurance and health sector, including projects for fraternal, mutual, and stock insurance companies, ranging from those acting in the capacity as direct carriers and reinsurers. Regardless of the client, he strives to translate complex actuarial commentary into easy to understand language for his clients. His uncanny abilities to dissect financial results and offer unique strategic solutions to mitigate risk only enhances his extensive financial oversight skills, including audit experience, of insurance sector's technical provisions (reserves) and capital on the balance sheet. Mr. Zass has aided various sized insurers on financial risk management; specifically, ALM, capital management, interest rate risk, asset adequacy testing. He consults insurance companies on both product and financial matters relating to their individual and group portfolios.

Mr. Zass graduated with a BSc degree from the University of Manitoba and attained his Associateship from the Society of Actuaries shortly after completing his post secondary level education. He is a Member of the American Academy of Actuaries and a Fellow of the Conference of Consulting Actuaries along with volunteering his time to various American Academy of Actuaries Working Groups. He speaks regularly at BDO Seidman partner meetings on actuarial matters.

Mark E. Shaw FSA, CERA, MAAA, FLMI
Consulting Actuary

Mr. Shaw provides consulting services to ARM, through his consulting position with the ARM Network firm, United Health Actuarial Services. He is a leader in the firm's medical and supplemental insurance practice and also provides expert witness and risk management services.

Mr. Shaw, in his 30th year of working in the life and health insurance industry, has held top actuarial and risk management positions at three Fortune 500 insurers. Immediately prior to his current consulting position, he was Senior Vice President of Strategic Development at Assurant, where he advised on the supplemental health business, evaluated and developed business plans for international opportunities for Assurant's health products and explored M&A opportunities. Prior to that, he was SVP and Chief Actuary of Assurant's group medical business. Mr. Shaw also worked as the global head of risk management at an international insurer.

Mr. Shaw is a Fellow of the Society of Actuaries, a Chartered Enterprise Risk Analyst, a Fellow of the Life Management Institute and a Member of the American Academy of Actuaries. He received a B.B.A. in Actuarial Science from Georgia State University in Atlanta, Georgia. For 3 years he led the Society of Actuaries' Enterprise Risk Management sub-group of the Risk Management Task Force.